What Is Claimed Is:

1. A method of identifying an orphan binding site on a target polypeptide sequence comprising the steps of,

(a) providing a library of potential ligands,

(b) providing the target polypeptide in contact with a known ligand for said target polypeptide,

(c) contacting the target polypeptide and known ligand with the potential ligands, and

(d) identifying the potential ligand that binds to said target polypeptide in the presence of the known ligand to form a binding pair with the target polypeptide.

2. The method of claim 1, wherein said library of potential ligands comprises a bacteriophage library.

3. The method of claim 1 wherein the target polypeptide sequence comprises a sequence selected from the group consisting of a receptor, a ligand, a growth factor, a polypeptide hormone, a cytokine, a differentiation factor, a molecule capable of signal transduction, an enzyme, and a polypeptide involved in extracellular matrix interactions.

4. The method of claim 3 wherein the receptor is a urokinase plasminogen activator receptor and the known ligand comprises one selected from the group consisting of vitronectin and uPA.

5. The method of claim 1 wherein the potential ligands comprise one selected from the group consisting of random synthesized peptides, small molecules, peptoids, polypeptides and polynucleotides.

6. The method of claim 1, wherein the potential ligands are contacted with the target polypeptide and unknown ligand to identify a potential ligand that antagonizes a binding pair interaction between the target polypeptide and an unknown ligand.

7. The method of claim 6, wherein the unknown ligand is integrin.

8. An isolated peptide that binds a urokinase plasminogen activator receptor (uPAR) and inhibits uPAR binding to an integrin.

9. The isolated peptide of claim 8, comprising an amino acid sequence selected from the group consisting of AESTYHHLSLGYMYTLN (SEQ ID NO:4), YHXLXXGYMYT (SEQ ID NO:5), where X is any amino acid.

10. An isolated peptide that binds a urokinase plasminogen activator receptor (uPAR) and inhibits uPAR binding to vitronectin.

11. The isolated peptide of claim 10, comprising an amino acid sequence selected from the group consisting of AEPVYQYELDSYLRSYY (SEQ ID NO:1), and AELDLSTFYDIQYLLRT (SEQ ID NO:3).

12. An isolated peptide that binds a urokinase plasminogen activator receptor (uPAR), comprising an amino acid sequence selected from the group consisting of AEFFKLGPNGYVYLHSA (SEQ ID NO:2) and FKLXXXGYVYL (SEQ ID NO:6), where X is any amino acid.

13. An isolated polynucleotide comprising an sequence that encodes a peptide that binds a urokinase plasminogen activator receptor (uPAR) and inhibits uPAR binding to an integrin.

14. The isolated polynucleotide of claim 13, wherein the sequence encodes a peptide comprising an amino acid sequence selected from the group consisting of AESTYHHLSLGYMYTLN (SEQ ID NO:4), and YHXLXXGYMYT (SEQ ID NO:5), where X is any amino acid.

15. An isolated polynucleotide comprising a sequence that encodes a peptide that binds to a urokinase plasminogen activator receptor (uPAR) and inhibits uPAR binding to vitronectin.

16. The isolated polynucleotide of claim 15, wherein the sequence encodes a peptide comprising the amino acid sequence selected from the group consisting of AEPVYQYELDSYLRSYY (SEQ ID NO:1) and AELDLSTFYDIQYLLRT (SEQ ID NO:3).

17. An isolated polynucleotide comprising a sequence that encodes a peptide that binds to a urokinase plasminogen activator receptor (uPAR), wherein the peptide comprises the amino acid sequence selected from the group consisting of AEFFKLGPNGYVYLHSA (SEQ ID NO:2) and FKLXXXGYVYL (SEQ ID NO:6), where X is any amino acid.

18. A method of treating a patient with a disorder characterized by upregulation of uPA and uPAR comprising the steps of

(a) providing an effective amount of an antagonist of a uPAR:integrin binding pair,

(b) administering the antagonist to the patient.

19. The method of claim 18, wherein the antagonist is a peptide comprising an amino acid sequence selected from the group consisting of AESTYHHLSLGYMYTLN (SEQ ID NO:4), and YHXLXXGYMYT (SEQ ID NO:5), where X is any amino acid.

20. The method of claim 18, wherein the antagonist comprises a polynucleotide encoding a peptide comprising an amino acid sequence selected from the group consisting of AESTYHHLSLGYMYTLN (SEQ ID NO:4), YHXLXXGYMYT (SEQ ID NO:5), where X is any amino acid.

21. The method of claim 18, wherein the disorder characterized by upregulation of uPA and uPAR further comprises cellular migration.

22. The method of treating a patient of claim 18, wherein the disorder further comprises one selected from the group consisting of cancer and chronic inflammation

23. A method of screening for an antagonist of uPAR:integrin interaction comprising the steps of:

(a) providing a peptide antagonist of a uPAR:integrin interaction;

(b) competing the peptide antagonist with a candidate antagonist for binding to uPAR;

(c) identifying a candidate antagonist by the ability to compete with the peptide antagonist for uPAR binding.

24. The method of claim 23, wherein the peptide antagonist comprises an amino acid sequence selected from the group consisting of AESTYHHLSLGYMYTLN (SEQ ID NO:4), and YHXLXXGYMYT (SEQ ID NO:5), where X is any amino acid.

25. The method of claim 24, wherein the candidate antagonist is selected from the group consisting of a small molecule, a peptide, and a peptoid.

26. A method of screening for an antagonist of uPAR:vitronectin interaction comprising the steps of:

(a) providing a peptide antagonist of a uPAR:vitronectin interaction;

(b) competing the peptide antagonist with a candidate antagonist for binding to uPAR;

(c) identifying a candidate antagonist by the ability to compete with the peptide antagonist for uPAR binding.

27. The method of claim 26, wherein the peptide antagonist comprises an amino acid sequence selected from the group consisting of AEPVYQYELDSYLRSYY (SEQ ID NO:1), and AELDLSTFYDIQYLLRT (SEQ ID NO:3).

28. A method of screening for an candidate that binds to a urokinase plasminogen activator receptor (uPAR) comprising the steps of:

(a) providing a peptide comprising an amino acid sequence selected from the group consisting of AEFFKLGPNGYVYLHSA (SEQ ID NO:2) and FKLXXXGYVYL (SEQ ID NO:6), where X is any amino acid;

(b) competing the peptide with a candidate for binding to uPAR;

(c) identifying a candidate by the ability to compete with the peptide for uPAR binding.

29. A pharmaceutical composition for treating a disorder characterized by upregulation of uPA and uPAR comprising an effective amount of an antagonist of a uPAR:integrin binding pair and a pharmaceutically acceptable carrier.

30. The pharmaceutical composition of claim 29, wherein the antagonist comprising a peptide that comprises an amino acid sequence selected from the group consisting of AESTYHHLSLGYMYTLN (SEQ ID NO:4), and YHXLXXGYMYT (SEQ ID NO:5), where X is any amino acid.

31. The pharmaceutical composition of claim 29, wherein the disorder characterized by upregulation of uPA and uPAR further comprise cellular migration.

32. A pharmaceutical composition for treating a patient with a disorder characterized by upregulation of uPA and uPAR comprising an effective amount of a nucleic acid encoding a peptide that comprises an amino acid sequence selected from the group consisting of AEPVYQYELDSYLRSYY (SEQ ID NO:1), AEFFKLGPNGYVYLHSA (SEQ ID NO:2), AELDLSTFYDIQYLLRT (SEQ ID NO:3), AESTYHHLSLGYMYTLN (SEQ ID NO:4), and YHXLXXGYMYT (SEQ ID NO:5), and FKLXXXGYVYL (SEQ ID NO:6), where X is any amino acid.

33. The pharmaceutical composition of claim 32, wherein the pharmaceutically acceptable carrier comprises one selected from the group consisting of a liposome, a gel, a polymer matrix, a foam, and a buffer.